

## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

- (i) APPLICANT: Lin, Yao-Zhong  
Hawiger, Jack J.
- (ii) TITLE OF INVENTION: A NOVEL METHOD FOR IMPORTING  
BIOLOGICALLY ACTIVE MOLECULES INTO CELLS
- (iii) NUMBER OF SEQUENCES: 11
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: NEEDLE & ROSENBERG, P.C.
  - (B) STREET: 127 Peachtree Street, N.E.
  - (C) CITY: Atlanta
  - (D) STATE: Georgia
  - (E) COUNTRY: USA
  - (F) ZIP: 30303-1811
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: Floppy disk
  - (B) COMPUTER: IBM PC compatible
  - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
  - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER:
  - (B) FILING DATE:
  - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: Perryman, David G.
  - (B) REGISTRATION NUMBER: 33,438
  - (C) REFERENCE/DOCKET NUMBER: 2200.021
- (ix) TELECOMMUNICATION INFORMATION:
  - (A) TELEPHONE: 404/688-0770
  - (B) TELEFAX: 404/688-9880

## (2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 26 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO

(ix) FEATURE:  
 (A) NAME/KEY: Peptide  
 (B) LOCATION: 1..16  
 (D) OTHER INFORMATION: /label= a  
                           /note= "Signal peptide amino acid sequence of  
                           K-FGF"

(ix) FEATURE:  
 (A) NAME/KEY: Peptide  
 (B) LOCATION: 17..19  
 (D) OTHER INFORMATION: /label= b  
                           /note= "Spacer region"

(ix) FEATURE:  
 (A) NAME/KEY: Peptide  
 (B) LOCATION: 20..26  
 (D) OTHER INFORMATION: /label= c  
                           /note= "Epitope tag"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro  
 1                          5                          10                          15

Ala Ala Ala Asp Gln Asn Gln Leu Met Pro  
                           20                          25

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 7 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:  
 (A) NAME/KEY: Peptide  
 (B) LOCATION: 1..7  
 (D) OTHER INFORMATION: /label= a  
                           /note= "Nuclear localization sequence of aFGF"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Asn Tyr Lys Lys Pro Lys Leu  
 1                          5

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 26 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 1..16
- (D) OTHER INFORMATION: /label= a  
/note= "Signal peptide amino acid sequence of K-FGF"

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 17..19
- (D) OTHER INFORMATION: /label= b  
/note= "Spacer region"

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 20..26
- (D) OTHER INFORMATION: /label= c  
/note= "Nuclear localization sequence of aFGF"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Ala	Ala	Val	Ala	Leu	Leu	Pro	Ala	Val	Leu	Leu	Ala	Leu	Leu	Ala	Pro
1				5					10					15	

Ala	Ala	Ala	Asn	Tyr	Lys	Lys	Pro	Lys	Leu
			20					25	

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 1..16
- (D) OTHER INFORMATION: /label= a  
/note= "Signal peptide amino acid sequence of K-FGF"

(ix) FEATURE:

- (A) NAME/KEY: Peptide

- (B) LOCATION: 17..19
- (D) OTHER INFORMATION: /label= b  
/note= "Spacer region"

## (ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 20..26
- (D) OTHER INFORMATION: /label= c  
/note= "Nuclear localization sequence of aFGF"

## (ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 26..28
- (D) OTHER INFORMATION: /label= d  
/note= "Epitope tag"

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Ala	Ala	Val	Ala	Leu	Leu	Pro	Ala	Val	Leu	Leu	Ala	Leu	Leu	Ala	Pro
1				5					10					15	
Ala	Ala	Ala	Asn	Tyr	Lys	Lys	Pro	Lys	Leu	Met	Pro				
			20					25							

## (2) INFORMATION FOR SEQ ID NO:5:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: peptide

## (ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 1..16
- (D) OTHER INFORMATION: /label= a  
/note= "Signal peptide of K-FGF"

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Ala	Ala	Val	Ala	Leu	Leu	Pro	Ala	Val	Leu	Leu	Ala	Leu	Leu	Ala	Pro
1				5					10					15	

## (2) INFORMATION FOR SEQ ID NO:6:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 41 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro  
1 5 10 15

Glu Ile Leu Leu Pro Asn Asn Tyr Asn Ala Tyr Glu Ser Tyr Lys Tyr  
20 25 30

Pro Gly Met Phe Ile Ala Leu Ser Lys  
35 40

(2) INFORMATION FOR SEQ ID NO:7:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Glu Ile Leu Leu Pro Asn Asn Tyr Asn Ala Tyr Glu Ser Tyr Lys Tyr  
1 5 10 15

Pro Gly Met Phe Ile Ala Leu Ser Lys  
20 25

(2) INFORMATION FOR SEQ ID NO:8:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro  
1 5 10 15

Ile Glu Glu Lys Arg Lys Arg Thr Tyr Glu  
                   20                                  25

(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro  
   1                  5                                  10                                  15

Val Asn Arg Lys Arg Asn Lys Leu Met Pro  
                   20                                  25

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Val Asn Arg Lys Arg Asn Lys Leu Met Pro  
   1                  5                                  10

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Ile	Glu	Glu	Lys	Arg	Lys	Arg	Thr	Tyr	Glu
1				5					10